

REMARKS

Claims 1-6 were examined. Claims 1, 3, 5 and 6 were rejected under the nonstatutory obviousness type double patenting policy. Claims 2 and 4 were rejected as being dependent on a rejected base claim. The specification was objected to because the abstract of the disclosure contains the word "invention". Re-examination and reconsideration of the claims in view of the terminal disclaimer, amended claims, and new claims is respectfully requested.

3: Abstract objections: Amendments to the abstract are given at the end of this response.

4: Double patenting rejection: The nonstatutory double patenting rejection in view of claim 3 of 6,658,325 B2 has been overcome by filing a terminal disclaimer. Present application 10/700,240 will now have the same expiration date as 6,658,325 B2.

Applicant respectfully submits that this terminal disclaimer should also overcome any potential double patenting issues that might arise with copending application 10/654,540. This is because a previous terminal disclaimer limited 10/654,540 to the same expiration date as 6,658,325 B2. The same inventor commonly owns '325, '540, and '700; and all will expire on the same day.

5: Nonstatutory obviousness type double patenting rejection: The nonstatutory obviousness type double patenting rejection of claims 1, 3, 5 and 6 in view of claim 3 of U.S. Patent Number 6,658,325 B2 is respectfully traversed in part and overcome in part.

To traverse and overcome this rejection, applicant respectfully submits that according to MPEP 804, the parent patent (in this case US patent 6,658,325 B2) is owned by the applicant, and a terminal disclaimer has been submitted. Thus 6,658,325 B2 cannot be used as prior art in an obviousness-type double patenting rejection.

Applicant must respectfully conclude that with the exclusion of 6,658,325 as admissible prior art, and nothing else cited, no basis for an obviousness-type double patenting rejection must exist here.

More specifically, applicant respectfully traverses this rejection on the grounds that according to MPEP 804, the obviousness criteria of 35 U.S.C. 103 must be applied here. These obviousness criteria are set out in MPEP 706.02(j).

MPEP 706.02(j): To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 2143 - 2143.03 for decisions pertinent to each of these criteria.

As discussed in MPEP 706.02(j), in order to establish obviousness, three basic criteria must be met. These are: 1: suggestion or motivation, 2: expectation of success, and 3: teaching of all claim limitations must be found in the prior art.

Since, with the exclusion of 6,658,325, which was invented by the applicant and which is owned by the applicant, no other prior art references have been cited, clearly the MPEP 706.02(j) criteria have not been met. 1: No prior suggestion or motivation has been cited. 2: No citation with which to judge expectation of success has been cited. 3: There is no prior art cited that teaches all of the claim limitations of the present disclosure.

Although examiner asserts that *"it would have been obvious to one of ordinary skill in the art at the [time the invention] was made to modify this application by using a non Internet connected external computer; and perform one or more functions while connecting to the Internet, because this modification would have introduced a slight modification to the system, thereby improving the links and the reliability of the robot as a whole"*, this teaching appears to be based upon applicant's own disclosure and inadmissible use of 6,658,325 B2. No prior art motivation or teaching of all claim limitations has been cited.

Applicant further traverses the rejection of claims 2 and 4 *"as being dependent upon a rejected base claim."* MPEP 2260.01 teaches against this type of rejection:

2260.01 Dependent Claims: If a base patent claim has been rejected or canceled, any claim which is directly or indirectly dependent thereon should be allowed if it is otherwise allowable. The dependent claim should not be objected to or rejected merely because it depends on a rejected or canceled claim [emphasis added]

Applicant respectfully traverses the claim 2 and 4 rejections on the basis that the terminal disclaimer excludes any independent claim 1 and claim 3 prior art on the basis of 6,658,325 B2, and there has been no additional citation or argument establishing that claim 2 or claim 4's additional teaching of a *"router to transmit data packets between the internet and the external computer controlled devices"* is obvious under the MPEP 706.02(j) criteria.

Amended claims:

Claims 5 and 6 have been amended; new claims 7 and 8 have been added.

Amended claim 5: Claim 5 has been amended to more specifically state that the short-range bi-directional digital radio external devices may consist of external computers.

RFID tags, or microprocessor controlled devices. This new RFID tag limitation finds support in the specification page 15 paragraphs 1-2 (original formatting) which states:

Many other types of external sensors are also be linked to a mobile robot by short-range digital links. These include environmental sensors, process sensors, chemical sensors, and the like.

One useful type of sensor is an object-reporting sensor, such as a radiofrequency identification tag (RFID tag). Such tags may contain a memory cache containing useful information, such as the object identifier, expiration date, and other characteristics.
[emphasis added]

Additionally, the two basic modes of robotic control previously discussed in claim 5, namely control through the internet, or control by external devices, have been slightly rewritten and delineated as (A) and (B) in order to improve readability.

Mode (A) finds support numerous specification paragraphs, such as paragraph 2 from page 12 shown below:

It is anticipated that the robot would receive its most general (highest level) commands from the remote Internet link.

Mode (B) finds support in the specification paragraph 3 from page 25, shown below:

In another configuration, the non-internet connected computer Fig 3 - (13) may direct a non-internet connected robot to seek out an Internet connection, and use the robot's onboard router to serve as a relay between the non-internet connected computer and the Internet.

Claim 6 has been rewritten to be parallel with revised claim 5.

New claim 7 discusses in more detail the various types of external devices, and the various ways in which the robot can be controlled.

- A functional limitation for the external device is permissible according to MPEP 2173.05(g), and the specific "radio controlled" limitation is supported by the use of the term "SBDRL controlled devices" (SBDRL was defined as "Short-range Bi-directional Digital Radio Link") in the text of the present specification.
- The definition of "internet" in terms of an interconnected system of networks that connects computers around the world via the TCP/IP protocol finds support in the standard 2006 dictionary definition of the word "internet." For example, the online Princeton University dictionary "Wordnet", 2.1 (available online at: <http://wordnet.princeton.edu/>) defines the internet as:

"S: (n) internet, net, cyberspace (a computer network consisting of a worldwide network of computer networks that use the TCP/IP network protocols to facilitate data transmission and exchange)"

- The robot control using commands: from either the robot's internal programming, the robot's response to environmental stimuli, from the internet, or from an external digital radio controlled device not connected to the internet, limitation finds support in the specification paragraph 3 from page 7:

In a fourth example, the mobile robot of this invention might be used as a mobile Internet router. Here the robot may be directed to move in such a way as to connect an isolated part of the internet, such as a single computer, single device, local network of computers, or local network of devices with the main body of the internet. Here the commands to move the robot may issue from either the robot's internal programming, the robot's response to environmental stimuli, from the local computer or device, or from a computer or device connected to the main body of the internet.
[emphasis added]

Claim 8 discusses an RFID tag type external digital radio controlled device in more detail, and discusses that this type of tag may receive energy from the radio signal emitted by the robot. This finds support in specification paragraph 2 from page 16:

For other situations, such when the SBDRL is a relatively simple RFID tag, the signal from the robot to the tag may be used to power-up the tag, either through the energy from the robot's radio signal, or through a simple digital "1" sent from the robot to the SBDRL RFID tag. In either case, the robot's message to the SBDRL unit can be as simple as an "I am in close proximity, start transmitting", which is equivalent to a digital "1". By contrast, the lack of robot close proximity can be considered to be a digital "0".

[emphasis added]

Other remarks:

Since application 10/654,540 is also copending with this application, applicant believes that it would expedite prosecution to point out the differences between 6,658,325 B2, copending application 10/654,540, and the present application (10/700,240) that make the three patents distinct from each other:

- In Patent 6,658,325 B2, the short-range bi-directional digital radio link controlled external devices are described (contain the structural limitation) as "computer controlled" devices, and the robot is described as being controlled by commands sent over the Internet.
- Copending application 10/654,540 contains all the original disclosures of 6,658,325 B2, and more extensively teaches (contains additional material discussing) that the robot may work with short-range bi-directional digital radio link controlled external devices that are RFID tags. To better encompass this RFID tag teaching, the limitations on the short-range bi-directional digital radio link controlled external devices are now described (contain the functional limitation) as "digital radio controlled" devices. This change from a structural

"computer controlled" limitation to a functional "digital radio controlled" limitation was done because the functional limitation better encompasses the RFID tag external devices taught in more detail by 10/654,540. The robot is still described as being controlled by commands sent over the Internet.

- Present application 10/700,240 contains all the disclosures of 10/654,540 (which in turn encompasses 6,658,325 B2), and more clearly teaches that the mobile robot may also incorporate telecommunications means to act as a mobile router. As a mobile router, the robot may position itself in a way that optimizes its ability to send data packets between the short-range bi-directional digital radio link controlled external devices, and the Internet. Acting as a mobile router, the robot *"examines the destination address of the data packet, consults the router's memory to determine the router's current understanding of the network configuration, and then sends the data packet along"* (page 3 paragraph 1). The present application also teaches robot control options in more detail, and teaches that the robot may be controlled by a wider variety of options such as by short-range bi-directional digital radio linked devices that were not (previously) connected to the internet.

Abstract amendments: Please amend the abstract of the specification to delete the following text "This invention is a" and add an upper case "A" as shown below:

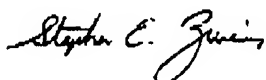
~~The invention is a~~ A computerized mobile robotic router with an onboard internet web server, and a capability of establishing a first connection to a remote web browser on the internet for robotic control purposes, and a capability of establishing a second short range bi-directional digital radio connection to one or more nearby computerized digital radio equipped computers or devices external to the robot. The short-range bi-directional digital radio connection will typically have a maximum range of about 300 feet. In a preferred embodiment, this short-range wireless digital connection will use the 2.4 GHz band and digital protocols following the IEEE 802.11, 802.15, or other digital communications protocol. By employing the proper set of external short-range digital

radio devices capable of interfacing with the robot (such as sensors, mechanical actuators, appliances, and the like), a remote user on the internet may direct the robot to move within range of the external devices or computers, and connect these devices or computers to the internet.

In view of the terminal disclosure, new amendments and accompanying remarks, applicant believes that the application is now in condition for allowance. Notice to that effect is respectfully requested.

If the examiner believes that a telephone conference would expedite prosecution of this application, please telephone the undersigned at (408) 348-1495.

Respectfully Submitted



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